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Capt. W. H. Smyth, R.N., Vice-President, in the Chair.

Isambard Kingdom Brunel, Esq., Duke Street, Westminster,

Edward Vogel, Esq., Assistant at Mr. Bishop's Observatory, South Villa, Regent's Park,

were balloted for and duly elected Fellows of the Society.

Discovery of a new Planet by Dr. A. de Gasparis.

"I have the honour to inform you that on the evening of March 17 I discovered a new planet. It resembles a star of 10.11 magnitude, and is at present near *Regulus*, with which I have compared it."

Apparent Positions.

1852.	Naples M.T. h m s	R.A. h m s	Decl. ° ′ ″	No. of Obs.
Mar. 17	9 52 32·5	9 57 56·7	+ 12 51 20	2
19	8 20 18·6	9 56 54·2	+ 12 58 19	7
20	9 25 27·1	9 56 21·2	+ 13 1 41	2

Note on the Discovery of the New Planet of De Gasparis.

By Mr. J. R. Hind, For. Sec. R. Ast. Soc.

On the 3d of April, letters arrived in this country from Professor De Gasparis, of Naples, announcing his discovery of a new planet on the evening of the 17th of March. It is described as resembling a star of the 10.11th magnitude.

The object of the present remarks is to show that the existence of this planet had been detected at Mr. Bishop's Observatory on the 18th of March, the night after the actual discovery at Naples.

On the 29th of January, during a final revision of the ecliptical chart for Hour x, prior to placing it in the engraver's hands, I entered an object shining as a star of the eleventh magnitude in R.A. $10^h\ 32^m\ 40^s$, Decl. $+8^\circ\ 59'$ (as nearly as the map will give it): some other small stars were entered the same evening, and the

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chart was believed to be complete. Every night for the week following proved cloudy, and in order to cause as little delay as possible in the publication of the map, the working copy was taken to the engraver, and the re-examination of the few stars marked upon it towards the end of January was deferred until a proof arrived. Considerable delay occurred, and we did not receive a perfect copy before the 18th of March. The evening being very fine, I compared the whole chart with the heavens, and immediately missed the star of the eleventh magnitude observed on January 29. I was certain of its planetary character and commenced a search for it at once. Supposing it to have been a distant planet (which, from its proximity to the ecliptic and faintness, was by no means improbable), it could not have retrograded more than three or four minutes in right ascension; but, on carefully looking over the neighbourhood, there appeared to be no star of the eleventh magnitude unmarked in its proper place upon the chart. The search was, therefore, conducted on the supposition that the missing star belonged to the group of minor planets: in this case it had probably retrograded into the chart for 9^h R.A. at present in an unfinished state, and I forthwith commenced mapping in every star to the eleventh magnitude inclusive, confining my attention on the 18th chiefly to the small stars lying more than $1^\circ\frac{1}{2}$ from the ecliptic north and south. This appeared desirable, because a planet with an inclination of 8° or 10° might have passed over several degrees of latitude since the 29th of January. On March 20th I renewed the search, but found all the stars of March 18 in their places; I, therefore, inserted those situated nearer to the ecliptic, and amongst them, one placed on the map in R.A. $9^h\ 56^m\ 30^s$, Decl. $+ 13^\circ\ 4'$, and noted as of the eleventh magnitude. During the ensuing fortnight the thick weather and moonlight effectually prevented us from carrying on the search, and at the time the announcement from Naples reached us we were merely waiting for a clear dark night to continue it. The observation by Professor de Gasparis on March 20 gives for the position of the planet a place agreeing so nearly with that of the star of eleventh magnitude inserted on our chart on the same night, that there can remain little doubt of my having again seen the planet, particularly as this star also is now missing.

In offering these remarks, I must disclaim on the part of Mr. Bishop and myself the most remote intention to interfere with the just claim of Professor de Gasparis to the merit of this discovery. A comparison of dates will prevent misapprehension on this point. The planet was actually detected as such at Naples on the 17th of March, while I was not aware of its existence until the following night. A week or two longer would no doubt have led to our recognising the planet again, had it escaped the admirable plan of examination of the heavens at present pursued by Professor de Gasparis.

Until the orbit of the new planet is calculated, we cannot, of course, decide whether it really occupied the position of the missing

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star of January 29th; I am satisfied the object seen that night was a small planet, and the fact of my having actually mapped in the new one as a star of eleventh magnitude, on March 20, was entirely owing to this conviction.

The copy of the ecliptical chart for 10^h, in the possession of the Society, contains the star of the eleventh magnitude inserted on January 29, which there is reason to suppose to have been the new planet.

The following positions have been obtained with Mr. Bishop's equatoreal:—

1852.	Greenwich M.T. h m s	R.A. h m s	Decl. ° ′ ″
April 3	11 43 58	9 51 14·03	76 22 30·5
	12 4 25	14·00	33·7
4	8 38 18	9 51 3·94	76 21 20·6

Liverpool. Equatoreal. (Mr. Hartnup.)

1852.	Green. M.T. h m s	R.A. h m s	Log $\frac{p}{P}$.	N.P.D. ° ′ ″	Log $\frac{q}{P}$.	Star of Comp.
April 7	8 35 26·1	9 50 33·75	−7·594	76 17 17·4	−9·8032	α Leonis
	8 52 23·2	33·52	−6·855	17·8	9·8027	—
	9 12 20·2	33·18	+7·428	15·6	9·8028	—
8	8 59 18·2	9 50 26·15	+7·031	76 16 10·9	9·8025	—
	9 17 15·6	25·93	7·632	9·3	9·8031	—
9	10 17 5·8	9 50 20·45	+8·186	76 15 5·7	9·8095	—
	10 47 1·0	19·80	8·305	4·4	9·8147	—
10	8 42 16·8	9 50 15·20	−6·730	76 14 14·8	9·8023	—
	9 0 14·0	14·85	+7·428	11·9	9·8024	—
11	8 17 21·6	9 50 11·57	−7·632	76 13 26·1	9·8023	—
	8 39 18·4	11·50	6·554	21·6	9·8022	—
12	8 33 19·1	9 50 8·79	−6·854	76 12 42·5	9·8021	—
	8 53 16·0	8·89	+7·456	40·2	9·8024	—
13	10 51 3·6	9 50 7·95	+8·369	76 12 3·1	9·8190	—
	11 11 0·8	7·80	8·416	0·1	9·8236	—
14	10 39 8·5	9 50 7·79	+8·343	76 11 35·4	9·8168	—
	10 59 5·2	7·69	8·397	35·3	9·8215	—
15	10 57 10·4	9 50 9·48	8·402	76 11 18·3	9·8220	—
	11 17 7·5	9·21	+8·447	17·8	−9·8272	—

The observations are corrected for refraction. The corrections to be applied for parallax in seconds of time and arc are represented by p and q. P is the equatoreal horizontal parallax.

The following is the assumed *mean* place of the Star of Comparison for 1852·0, derived from the Greenwich Observations for 1850.

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	R.A.	N.P.D.
	h m s	° ′ ″
α Leonis	10 0 29·14	77 18 40·40

The sky on the 9th was very hazy, and the observations of the planet were marked "exceedingly faint and not good."

HAMBURG. (M. C. Rümker.)

1852.	Hamburg M.T.	App. R.A.	Decl.	No. Obs.
	h m s	h m s	° ′ ″	
April 11	8 58 14·6	9 50 11·84	+13 46 47·6	6
14	9 2	50 8·35	48 19·6	2
15	8 47	50 9·77	48 37·5	1
16	8 46 31·2	9 50 11·51	+13 49 1·2	6

Apparent Places of the compared Stars according to the Hamburg observations with the Meridian Circle.

	R.A.	Decl.
	h m s	° ′ ″
April 4	9 49 11·35	+13 51 30·0
16	9 49 11·34	+13 51 29·8

Elements.

Computed from the Naples Observation of March 19 and the South Villa Observations of April 3 and 12, by M. Edward Vogel, F.R.A.S., of the South Villa Observatory.

	° ′ ″	
M	77 38 43·33	April 0·1852, 0h Berlin M.T.
π	33 36 43·23	M. Eq. 1852, Jan. 1.
☊	151 11 36·52	
i	3 30 14·67	
φ	24 39 56·22	
Log *a*	0·4865700	
μ	660″·9250	
dl	= −0″·10	Computed − Observed.
db	= 0″·00	

By M. George Rümker.

From the *Naples* observations of March 19 and 29, and the *South Villa* observations of April 4.

	° ′ ″	
M....................	= 280 25 21·5	1852, April 1·0, Berlin T.
π....................	253 56 20·8	Mean Eqx,
☊	150 14 11·7	1852, Jan. 0·0.
i	2 43 8·1	
φ....................	7 42 56·3	
Log *a*	0·4965374	
Log μ	2·8052005	

These elements represent the middle observation exactly, but they must be considered merely as approximate.